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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,725	12/03/2001	Gerardus Kramer	T7A	7894

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EXAMINER

KERNs, KEVIN P

ART UNIT	PAPER NUMBER
1725	6

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/890,725	KRAMER ET AL.
	Examiner	Art Unit
	Kevin P. Kerns	1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-9 is/are rejected.

7) Claim(s) 1,2 and 6-8 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 December 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

4) Interview Summary (PTO-413) Paper No(s). _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "15" has been used to designate both a "torch holder" and "clamping jaws" (Figures 2 and 3, as disclosed on page 5, lines 7, 10, 20, 27, and 37 of the specification). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "A" and "B" have each been used to designate both "welding layers" (Figures 3 and 5, on page 5, line 33, and page 6, line 26 of the specification) and "movement of (leading and trailing) torches" (Figure 4, on page 6, lines 5 and 6 of the specification). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The

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abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

5. Claims 1, 2, and 6-8 are objected to because of the following informalities: in claim 1, 6th line, as well as claim 7, 5th line, "a" should be added before "longitudinal". In claim 1, 11th line, "a" should be added before "peripheral". In claims 2 and 8, 2nd line of both claims, "outward" should be changed to "outwardly". In claim 6, 2nd line, "a" should be added before "downward". In claim 8, 4th line, "a" should be added before "transverse". Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the

remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 1 and 7 recite the broad recitation "bodies", and the claims also recite "pipes or plates" which is the narrower statement of the range/limitation.

With regard to claim 1, this claim is indefinite as being a narrative method claim lacking distinct, active, chronological process steps.

Claims 2-4 recite the limitation "the trailing welding torch". There is insufficient antecedent basis for this limitation in the claims.

Claims 3 and 4 recite the limitation "the leading welding torch". There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the respective welding torch". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazlauskas (US 4,373,125).

Kazlauskas discloses an apparatus provided with a guide means for welding pipes with slightly beveled ends (outwardly diverging walls) to be joined, in which the apparatus includes first and second carriages (108,110), which are driven by motor means, and extend approximately 180 degrees, or along half the periphery of the circular pipe in a (selectively) downward direction, with each of the carriages supporting a pair of spaced apart welding heads, or torches, which are movable in the longitudinal direction of the weld groove (abstract; column 1, lines 5-10; column 2, lines 7-28; column 7, lines 30-68; column 8, lines 1-68; column 9, lines 1-2; and Figures 1, 3, and 13-16). Each of the welding heads (A,B,C,D) includes a housing 150 having a motor structure 160 (with a motor shaft pin driver 164) to move the welding electrode 46 closer and further away from the structure to be welded, in addition to means to oscillate the welding electrode transversely across the welding groove (column 9, lines 42-68; column 10, lines 1-68; column 11, lines 1-59; and Figures 1, 3-5, and 17).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazlauskas (US 4,373,125) in view of JP 55-84276.

Kazlauskas discloses the elements of claim 7 above. Kazlauskas does not specifically disclose a process for which two welding layers are laid in one welding pass.

However, JP 55-84276 discloses an apparatus for welding pipeline girth joints, in which two pairs of welding torches 1,2 (in which the preceding electrode is being weaved/oscillated to improve penetration and bead shape) are used to successively accumulate two welding layers 5,6, such that the second bead is advantageous for smoothing the surface and keeping the accumulation of layers free from defects, while decreasing the cooling rate of the weld zone (abstract; and Figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the pipe welding apparatus of Kazlauskas, by adding the successive accumulation of two welding layers, as taught by JP 55-84276, in order to smooth the surface and keep the accumulation of layers free from defects, while decreasing the cooling rate of the weld zone (JP 55-84276; abstract).

14. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazlauskas (US 4,373,125) in view of JP 55-84276 as applied to claim 1 above, and further in view of Friedman et al. (US 4,019,016).

Kazlauskas (in view of JP 55-84276) disclose and/or suggest the elements of claim 1 above. Neither Kazlauskas nor JP 55-84276 specifically discloses the variation of frequency and/or amplitude of the torch oscillations.

However, Friedman et al. disclose welding control systems for an electric arc welding system, in which the programming circuits cause the torch to move back and forth across the weld path, in which both frequency and amplitude are controlled appropriately, such that a high quality weld is obtained (abstract; column 1, lines 54-64; column 3, lines 34-42 and 63-68; column 4, lines 1-23; column 9, lines 9-31; column 12, lines 40-68; column 13, lines 1-39; column 14, lines 1-6; and Figures 1-10).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the pipe welding apparatus of Kazlauskas, by adding the successive accumulation of two welding layers, as taught by JP 55-84276, and by further adding the control of frequency and amplitude of the torch, as disclosed

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by Friedman et al., in order to obtain a high quality weld (Friedman et al.; column 3, lines 34-42 and 63-68; and column 4, lines 1-23).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Tanaka et al., Merrick et al., and Belloni et al. references are also cited to show related art.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin P. Kerns whose telephone number is (703) 305-3472. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-6078 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

KPK
kpk
January 28, 2003



M. ALEXANDRA ELVE
PRIMARY EXAMINER